



Psychological Effects of ACL Injuries on an Athlete’s Return to Sport

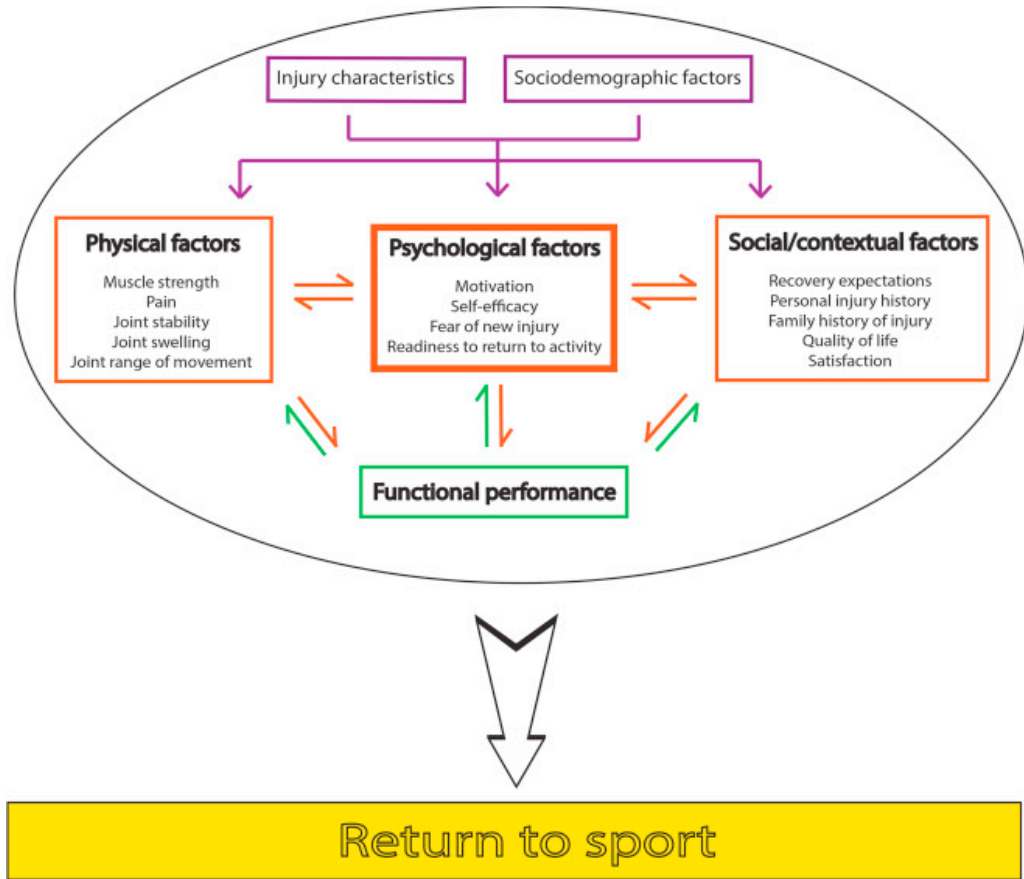
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Limitations and Suggestions for Future Research

Although the ACL injury is very common, research on the effects of the ACL injury specifically are limited. The current inquiry is limited by not only limited literature specific to psychological effect of return to sport post-ACL injury, but also limited in that it examines athletes as a general population. Further research in this area should not only examine the ACL injury specifically, but also how psychological impact differs across gender, sport, and level of play. A further suggestion is the exploration of the role of sporting professionals beyond sport psychologist such as physical therapists, coaches, and athletic trainers, in the role of both acknowledging and overcoming psychological effects of an ACL injury upon return to sport. This would allow for utilization of pre-injury PST interventions to be applied to the post-injury process consistent with results of this research.



Research Question and Objectives

What are the psychological effects of an ACL Injury on an athlete’s return to sport?

Objectives:

1. Understand the psychological impact of an ACL injury on an athlete’s return to sport.
2. Examine the psychological impact of an ACL injury on sport performance.
3. Explore evidence-based strategies for overcoming psychological effects of an ACL injury.



Psychological Effects of Injury on Return to Sport

Research has shown that although injuries are devastating and may alter an athlete’s career forever, the majority of athletes are unwilling to give up and attempt to return to sport (Wiese-Bjornstal 1998). This is in large part to sporting culture, strength of identification to the athletic role, and both intrinsic and extrinsic motivational factors (Smith 1998). Studies indicate that athletes perceive a lack of choice associated with return to sport and that acceptance of the physical risks often overshadow acknowledgement of psychological impact factors (Wiese-Bjornstal 1998).

Psychological Effects of ACL Injuries & Sport Performance

According to Kvist (2005), one of the most frequent and powerful fears experienced by an athlete who has suffered an ACL injury is the fear of re-injuring the knee and having to relive the physical rehabilitation process again. Studies indicate that additional fears experienced include, impaired athletic performance, perceived physical impairment or weakness, loss of intrinsic motivation for the sport (Ardern 2015). It is this fear of re-injury that is deeply emotionally rooted, difficult to overcome, and therefore most significantly impacts performance (Kvist, 2005). Additional research indicates that the long physical rehabilitation process and the significantly greater period of time away from sport result in the ACL injury being the athletic injury with the greatest effect on sport performance upon return to sport as well as the injury with the overall most significant psychological impact (Wiese-Bjornstal, 1998).

Evidence-Based Strategies: PST

Psychological Skills Training (PST) is a set of interventions such as, imagery, goal setting, self-talk, and relaxation utilized by sport psychologists to athletes with psychological adjustment in return to sport post-injury (Weinberg, Gould, 2015). Coping strategies, emotional and cognitive response, and acceptance of the injury have also been shown to have significant impact on successful return to sport (Ardern, 2015). Research has shown that the use of these PST interventions is associated with a positive psychological response to return to sport and therefore, more positive performance outcomes (Wiese-Bjornstal 1998). The extent of one’s utilization of PST strategies prior to injury, the more significant the success rate of psychological adjustment upon returning to sport (Cupal, 2001). Furthermore, attitude and self-perception of readiness are also significant determinants of success of return as well as significant indicators of sport performance (Wiese-Bjornstal, 1998).

References

Clare L. Ardern, Joanna Kvist, Kate E. Webster (2015). Psychological Aspects of Anterior Cruciate Ligament Injuries. *Operative Techniques in Sports Medicine, Volume 24, Issue 1*, 77-83. <https://doi.org/10.1053/j.otsm.2015.09.006>.

Clare L. Ardern, PT, Nicholas F. Taylor, y PT, PhD, Julian A. Feller, MD, FRACS, Timothy S. Whitehead MD, FRACS, and Kate E. Webster, PhD (2013). Psychological Responses Matter in Returning to Preinjury Level of Sport After Anterior Cruciate Ligament Reconstruction Surgery. *The American Journal of Sports Medicine, Vol. 41, No. 7* DOI: 10.1177/0363546513489284

Cupal, D. D., & Brewer, B. W. (2001). Effects of relaxation and guided imagery on knee strength, reinjury anxiety, and pain following anterior cruciate ligament reconstruction. *Rehabilitation Psychology, 46*(1), 28-43. doi:10.1037/0090-5550.46.1.28

Diane M. Wiese-bjornstal , Aynsley M. Smith , Shelly M. Shaffer & Michael A. Morrey (1998) An integrated model of response to sport injury: Psychological and sociological dynamics, *Journal of Applied Sport Psychology, 10*: 1, 46-69, DOI: 10.1080/10413209808406377

How to deal with an Anterior Cruciate Ligament (ACL) Tear injury. (2016, September 13). Retrieved November 30, 2017, from <http://juronghealthconnect.com.sg/how-to-deal-with-an-anterior-cruciate-ligament-acl-tear-injury>

Kvist, J., Ek, A., Sporrstedt, K. et al. (2005) *Knee Surg Sports Traumatol Arthrosc* 13: 393. <https://doi-org.libproxy.bridgeport.edu/10.1007/s00167-004-0591-8>

Mental Effects Of Sports Injuries. (2017, August 27). Retrieved November 30, 2017, from <https://www.theodysseyonline.com/mental-effects-sports-injuries>

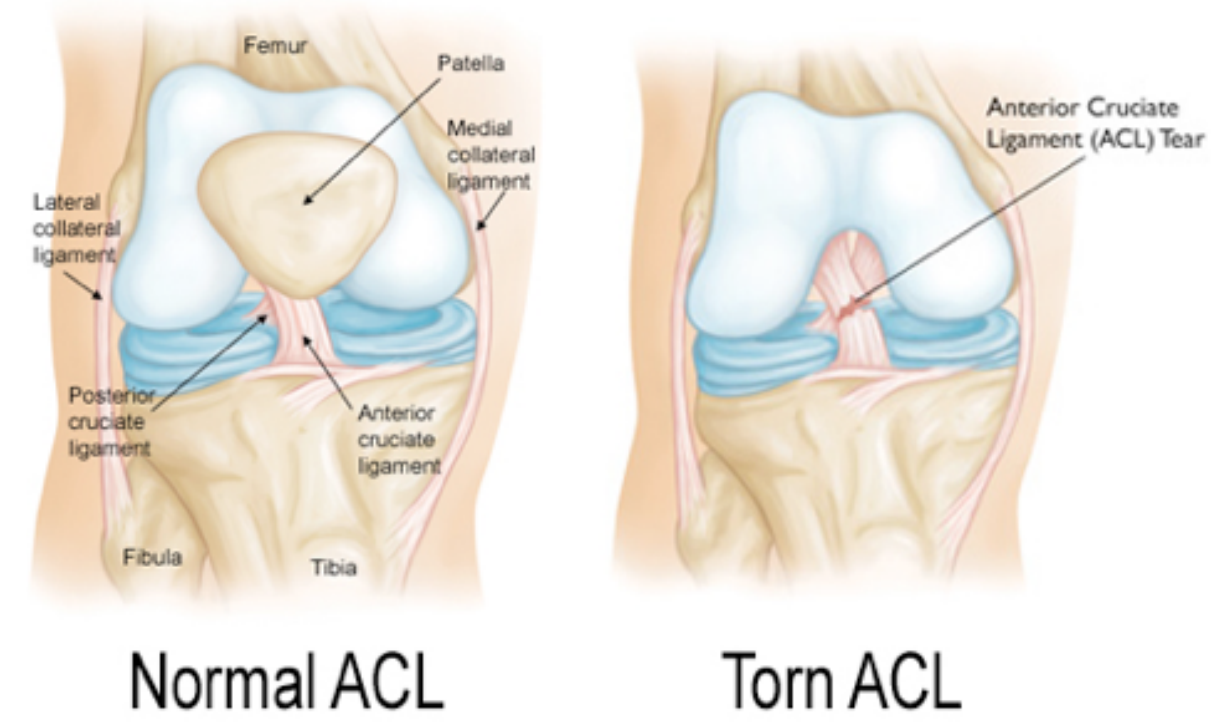
Weinberg, R. S., & Gould, D. (2015). *Foundations of sport and exercise psychology*. Champaign, IL: Human Kinetics.

Abstract

While much attention is paid to physical rehabilitation, a review of the literature indicates that it is the psychological return to sport post-injury that most significantly determines a successful return. That is, with proper rehabilitation and strength training an athlete can achieve a successful physical return however, psychological factors are often unseen, unreported, or ignored and consequently have the greatest impact on performance. Fear of injury is something all athletes face, however, post-injury this fear intensifies impacting an athlete’s cognitions, confidence, and performance. Results from the current inquiry indicate that the ACL injury has specifically been shown to have greater psychological consequences, than other injuries. Factors such as a long recovery time and significant amounts of rehabilitation as well as several months away from competitive sports, are all contributing factors to psychological stress.

Statement of the Problem

ACL injuries are analogous to an epidemic within sports. According to the American Academy of Orthopedic Surgeons there are approximately 100,000 to 200,000 ACL tears a year in the USA alone. Studies have also shown that approximately only half of athletes who have suffered ACL injuries actually return to their previous level of activity (Ardern, 2013). Advancement of medical technology allows for ACL injury to no longer be physically career ending. That is, it is entirely possible to regain pre-injury physical abilities with proper rehabilitation (Ardern, 2015). However, athletes returning to sport post-ACL injury continue to struggle with performance despite their physical recovery (Ardern, 2015). This leads researchers and sport psychologists alike to postulate that it is the psychological aspects of returning to sport that are an athlete’s largest struggle, yet remain largely ignored. The culture of athletics, coaches, trainers, and often athletes themselves are unaware of the significant role the mind plays in a successful return to sport (Wiese-Bjornstal, 1998). It is this combination of frequency and lack of understanding that justifies the need for further examination.



Conclusion

Sporting culture, over identification with the athletic role, and emphasis on physical rehabilitation each contribute to the minimization of psychological effects of injury. Results of an examination of literature indicate that the ACL injury is the injury with the most significant psychological effect on athletes. This is due to several critical factors such as, frequency of the injury, rehabilitation time, perceived life-long physical impairment, and loss of intrinsic motivation. Such psychological effects were also found to be significant predictors of successful or unsuccessful athletic performance outcomes upon return to sport post-injury. However, with evidence-based intervention and mental training, such as Psychological Skills Training (PST), athletes can overcome the psychological effects of an ACL injury and successfully return to their sport with positive performance outcomes.